

one of the pressure fluid connection between the common pressure fluid line and the at least one first support element, and the pressure fluid connection between the common pressure fluid line and the at least one second support element, the pressure differential being changeable by the adjustable pressure reduction device.

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REMARKS

*Summary of the Amendment*

Upon entry of the above amendment, claim 13 will have been amended. Accordingly, claims 1 - 34 remain currently pending.

*Summary of the Official Action*

In the instant Final Office Action, the Examiner has rejected the claims based upon obviousness-type double patenting and over the documents of record. By the present amendment and remarks, Applicants submit that the rejections have been overcome, and respectfully request reconsideration of the outstanding Office Action and allowance of the present application.

*Amendment is Proper for Entry*

Applicants note that, as the instant amendment is directed solely to formal matters, the instant amendment does not raise any question of new matter nor any new issues for consideration by the Examiner. Moreover, Applicants submit that the instant amendment places the application in condition for allowance, or at least in better condition for appeal.

Accordingly, entry of the amendment and consideration of the same is hereby

requested.

***Traversal of Obviousness-Type Double Patenting Rejection***

***1. Over Bentele in view of EP '495***

Applicants traverse the rejection of claims 1 - 24 and 26 - 34 based upon the judicially created doctrine of obviousness-type double patenting over claims 1 - 9 of BENTELE et al. (U.S. Patent No. 5,788,817) [hereinafter "BENTELE"] in view of European Patent Application No. 0 752 495 [hereinafter "EP '495"]. The Examiner acknowledges that the claims of BENTELE fail to disclose a pressure fluid line arranged to generate internal pressures by the first and second support elements, and an adjustment device arranged to change a pressure differential between the internal pressures generated by the first and second support elements, but asserts that, because EP '495 discloses a shoe press having support elements to press against a sag adjustment roll with support elements, and that these support elements are fed with pressurized liquid from a common source, and that it would have been obvious to modify BENTELE to include an adjustment device, as disclosed by EP '495.

Initially, Applicants agree with the Examiner's assessment that claims 1 - 9 of BENTELE fail to disclose, *inter alia*, a pressure fluid line arranged to generate internal pressures by the at least one first support element on the flexible press belt of the shoe press unit and by the at least one second support element on the roll jacket of the counter roll, and an adjustment device arranged to change a pressure differential between the internal

pressures generated by the at least one first support element acting on the flexible press belt of the shoe press unit, and the at least one second support element acting on the roll jacket of the counter roll, as recited in at least independent claim 1. Moreover, Applicants submit that BENTELE fails to disclose, *inter alia*, adjusting a pressure differential between internal pressures generated by the at least one first support element acting on the flexible press belt, and the at least one second support element acting on the roll jacket, where the pressure differential is adjusted by adjusting the pressure of the fluid supplied to the at least one first support unit and the at least one second support unit, as recited in at least independent claim 33.

Moreover, Applicants submit that claims 1 - 9 of BENTELE fail to teach or suggest the additional use of the above-noted features. In this regard, the Examiner has applied the EP '495 in combination with BENTELE. However, Applicants note that EP '495 discloses a shoe press device and that the pressure of the support elements should be approximately alike. Further, contrary to the Examiner's assertions, EP '495 discloses a *pressure reduction valve 28* to adjust the pressure *to compensate for the weight of the roll jacket*, not an adjustment device to change a differential pressure, as recited in at least independent claims 1 and 33.

Moreover, Applicants note that EP '495 discloses additional pressure controls coupled to press shoes having different dimensions than the main shoe presses, i.e., at the edge regions. These controls are provided to reduce the pressure to the reduced sized shoes so that

a uniform pressure is produced. As such, Applicants submit that EP '495 provides no teaching or suggestion of adjusting a differential pressure, as recited in at least independent claims 1 and 33, rather, EP '495 strives to maintain a uniform pressure between support elements, regardless of the relative sizes of the support elements.

Thus, Applicants submit that, as neither applied document teaches or suggests at least the above-noted features of the instant invention, no proper combination of claims 1- 9 of BENTELE in view of EP '495 can render unpatentable the combination of features recited in at least independent claims 1 and 33. Thus, Applicants submit that the asserted rejection is improper and should be withdrawn.

Moreover, as claims 1 - 9 of BENTELE fail to teach or suggest different sized support elements and/or maintaining a uniform pressure between differently sized support elements extending in a longitudinal direction, the art of record fails to teach or suggest the requisite motivation or rationale for modifying BENTELE in accordance with the teaching of EP '495. Accordingly, Applicants submit that the asserted modification of BENTELE can only be based upon a review of Applicants' disclosure and the application of impermissible hindsight, and that the rejections based on this improper combination are also improper and should be withdrawn.

Accordingly, Applicants request that the Examiner reconsider and withdraw the obviousness-type double patenting rejection of claims 1 - 24 and 26 - 34, and indicate that the instant claims are patentably distinct over any proper combination of claims 1 - 9 of

BENTELE in view of EP '495.

2. Over Bentele in view of Smook

Applicants traverse the rejection of claim 25 based upon the judicially created doctrine of obviousness-type double patenting over claims 1 - 9 of BENTELE in view of SMOOK (*Handbook for Pulp & Paper Technologists, 2nd ed.*).

As noted above, Applicants agree with the Examiner's assessment that claims 1 - 9 of BENTELE fail to disclose, *inter alia*, a pressure fluid line arranged to generate internal pressures by the at least one first support element on the flexible press belt of the shoe press unit and by the at least one second support element on the roll jacket of the counter roll, and an adjustment device arranged to change a pressure differential between the internal pressures generated by the at least one first support element acting on the flexible press belt of the shoe press unit, and the at least one second support element acting on the roll jacket of the counter roll, as recited in at least independent claim 1.

Further, Applicants note that SMOOK fails to teach or suggest any of the subject matter noted above as deficient in claims 1 - 9 of BENTELE. As such, Applicants submit that claim 25 is patentably defined over any proper combination of claims 1 - 9 of BENTELE in view of SMOOK.

Accordingly, Applicants request that the Examiner reconsider and withdraw the obviousness-type double patenting rejection over claims 1 - 9 of BENTELE in view of SMOOK and indicate that these claims are patentably defined over the applied documents.

***Traversal of Rejection Under 35 U.S.C. § 112, Second Paragraph***

Applicants traverse the rejection of claims 13 - 17 under 35 U.S.C. § 112, second paragraph, as being indefinite. By the present amendment, claim 13 has been amended to address and overcome the formal matter noted by the Examiner.

Accordingly, Applicants request that the Examiner reconsider and withdraw the rejection under 35 U.S.C. § 112, second paragraph, and indicate that the claims are fully in compliance with the requirements of the statute.

***Traversal of Rejection Under 35 U.S.C. § 103(a)***

*1. Over Bentele in view of EP '495*

Applicants traverse the rejection of claims 1 - 24 and 26 - 34 under 35 U.S.C. § 103(a) as being unpatentable over BENTELE (or DE 195 20 443 [hereinafter "DE '443"]) in view of EP '495. The Examiner acknowledges that, while BENTELE (or DE '443) fails to disclose a pressure fluid line arranged to generate internal pressures by the first and second support elements, and an adjustment device arranged to change a pressure differential between the internal pressures generated by the first and second support elements, because EP '495 discloses a shoe press having support elements to press against a sag adjustment roll with support elements, and because these support elements are fed with pressurized liquid from a common source, that it would have been obvious to modify BENTELE (or DE '443) to include an adjustment device, as disclosed by EP '495.

In addition to the above-discussion of BENTELE and EP '495, Applicants note

BENTELE fails to teach or suggest the requisite motivation or rationale for modifying BENTELE to include a pressure fluid line arranged to generate internal pressures by the at least one first support element on the flexible press belt of the shoe press unit and by the at least one second support element on the roll jacket of the counter roll, and an adjustment device arranged to change a pressure differential between the internal pressures generated by the at least one first support element acting on the flexible press belt of the shoe press unit, and the at least one second support element acting on the roll jacket of the counter roll, as recited in at least independent claim 1. Further, Applicants submit that BENTELE fails to teach or suggest adjusting a pressure differential between internal pressures generated by the at least one first support element acting on the flexible press belt, and the at least one second support element acting on the roll jacket, where the pressure differential is adjusted by adjusting the pressure of the fluid supplied to the at least one first support unit and the at least one second support unit, as recited in claim 33. Applicants submit that BENTELE fails to disclose at least the above-noted features of the instant invention.

Moreover, Applicants note that DE '443 is a patent family member of BENTELE, which is utilized in an alternative rejection in view of EP '495. Thus, DE '443 suffers from the same deficiencies as have been noted above with regard to BENTELE.

In particular, while BENTELE (or DE '443) discloses throttles 13 located between the common fluid pressure line 12 and each support element, these throttles are provided to ensure a greater pressing pressure being applied at the press roll 3 than at the backing roll 8.

In this way, shell 9 of backing roll 8 sags downwardly in its axial central region. However, BENTELE (or DE '443) fails to disclose or suggest the specifics of throttles 13, and certainly fails to disclose or suggest any information with regard to adjustability. Thus, Applicants submit that BENTELE fails to disclose or suggest, *inter alia*, an adjustment device arranged to change a pressure differential between the internal pressures generated by the at least one first support element acting on the flexible press belt of the shoe press unit, and the at least one second support element acting on the roll jacket of the counter roll, as recited in at least independent claim 1, and fails to disclose or suggest, *inter alia*, adjusting a pressure differential between internal pressures generated by the at least one first support element acting on the flexible press belt, and the at least one second support element acting on the roll jacket, where the pressure differential is adjusted by adjusting the pressure of the fluid supplied to the at least one first support unit and the at least one second support unit, as recited in at least independent claim 33.

Moreover, as BENTELE (or DE '443) discloses only that the throttles are provided to produce a specific sag in shell 9, Applicants submit that BENTELE (or DE '443) fails to disclose or suggest any motivation or rationale to lead one ordinarily skilled in the art to modify BENTELE (or DE '443) so as to include an adjustment device to change a pressure differential between the internal pressures generated by the at least one first support element acting on the flexible press belt of the shoe press unit, and the at least one second support element acting on the roll jacket of the counter roll, as recited in at least independent claim



1, and/or to adjust a pressure differential between internal pressures generated by the at least one first support element acting on the flexible press belt, and the at least one second support element acting on the roll jacket, where the pressure differential is adjusted by adjusting the pressure of the fluid supplied to the at least one first support unit and the at least one second support unit, as recited in at least independent claim 33.

As was also discussed above, Applicants note that EP '495 discloses a shoe press device and that the pressure of the support elements should be approximately alike, but that, contrary to the Examiner's assertions, EP '495 discloses a *pressure reduction valve* 28 to adjust the pressure *to compensate for the weight of the roll jacket*, not an adjustment device to change a differential pressure, as recited in at least independent claims 1 and 33.

Moreover, Applicants note that EP '495 discloses additional pressure controls coupled to press shoes having different dimensions than the main shoe presses, i.e., at the edge regions. These controls are provided to reduce the pressure to the reduced sized shoes so that a uniform pressure is produced. As such, Applicants submit that EP '495 provides no teaching or suggestion of adjusting a differential pressure, as recited in at least independent claims 1 and 33, rather, EP '495 strives to maintain a uniform pressure between support elements, regardless of the relative sizes of the support elements.

Thus, Applicants submit that, as neither applied document teaches or suggests at least the above-noted features of the instant invention, no proper combination of BENTELE (or DE '443) in view of EP '495 can render unpatentable the combination of features recited in

at least independent claims 1 and 33. Thus, Applicants submit that the asserted rejection is improper and should be withdrawn.

Moreover, as BENTELE (or DE '443) fail to teach or suggest different sized support elements and/or maintaining a uniform pressure between differently sized support elements extending in a longitudinal direction, the art of record fails to teach or suggest the requisite motivation or rationale for modifying BENTELE (or DE '443) in accordance with the teaching of EP '495. Accordingly, Applicants submit that the asserted modification of BENTELE (or DE '443) can only be based upon a review of Applicants' disclosure and the application of impermissible hindsight, and that the rejections based on this improper combination are also improper and should be withdrawn.

Applicants also note that the Examiner cannot simply ignore functional features, since some the pending claims recite structural features that, by virtue of their particular arrangement, can also provide a specified function.

Further, Applicants submit that claims 2 - 24 and 26 - 32 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicants submit that no proper combination of BENTELE (or DE '443) in view of EP '495 teaches or suggests, *inter alia*, the at least one first support element being pressure fluid-actuated, as recited in claim 2; the at least one second support element being pressure fluid-actuated, as recited in claim 3; the fibrous material web comprising at least one of a paper web and a

cardboard web, as recited in claim 4; a line force differential between the shoe press unit and the counter roll being changeable with the pressure differential, as recited in claim 5; a cross-section of the pressure differential being produced lateral to the web travel direction, the cross-section of the pressure differential being changeable so different pressure differentials are adjustable over the width, as recited in claim 6; the line force in the roll nip changeable by way of the pressure differential, as recited in claim 7; line forces that are at least essentially even being adjusted in the roll nip by way of the variable pressure differential, as recited in claim 8; one of the pressure differential and the line force differential being continuously changeable in areas, as recited in claim 9; the internal pressure produced by the at least one first support element being changeable to change the pressure differential, as recited in claim 10; the internal pressure produced by the at least one second support element being changeable to change the pressure differential, as recited in claim 11; both the internal pressure produced by the at least one first support element and the internal pressure produced by the at least one second support element being changeable to change the pressure differential, as recited in claim 12; the at least one first support element and the at least one second support element being connected to the common pressure fluid line, the adjustment device comprising the adjustable pressure reduction device provided in at least one of the pressure fluid connection between the common pressure fluid line and the at least one first support element, and the pressure fluid connection between the common pressure fluid line and the at least one second support element, the pressure differential being changeable by the

adjustable pressure reduction device, as recited in claim 13; at least one of the at least one first support element and the at least one second support element being connected to the common pressure fluid line one of individually, in groups, and all together, as recited in claim 14; the adjustable pressure reduction device being provided between at least one of the groups of the at least one second support element and the common pressure fluid line, thereby reducing the pressure of the at least one second support element connected to the common pressure fluid line in groups, as recited in claim 15; the adjustable pressure reduction device being provided between at least one individual at least one second support element and the common pressure fluid line, thereby reducing the pressure of the at least one second support element individually connected to the common pressure fluid line, as recited in claim 16; the adjustable pressure reduction device including at least one variably adjustable valve, as recited in claim 17; at least one of the pressure differential and the line force differential being externally adjustable, as recited in claim 18; at least one of the pressure differential and the line force differential being adjustable by one of mechanically, hydraulically, pneumatically, manually, by remote control, at the site, from a control position, and in a process-guided manner, as recited in claim 19; the pressure differential being adjustable as a function of a line force in the roll nip by predeterminable characteristic curves, as recited in claim 20; the pressure differential being adjustable as a function of line force correction procedures for the roll nip, wherein the line force correction procedures may be at least one of input by way of an electronic control and produced by way of

corresponding signals of a process guidance system, as recited in claim 21; the pressure differential being adjustable by way of a regulating system that includes at least one closed regulation loop, as recited in claim 22; a line force in a second roll nip formed between the third roll and a fourth roll being changeable by way of the pressure differential, as recited in claim 23; at least one of the counter roll and the third roll being cambered, as recited in claim 24; the shoe press unit comprising a shoe press roll and the flexible press belt, the flexible press belt comprising a flexible press jacket, as recited in claim 26; the shoe press unit disposed above the counter roll, as recited in claim 27; the ends of the roll jacket of the counter roll being supported on the relevant carrier so that the roll jacket cannot move radially, as recited in claim 28; an action plane of the at least one second support element of the counter roll inclined slightly in relation to a second action plane of the at least one first support element of the shoe press unit, wherein an inclination angle lies in a range from about  $2^{\circ}$  to  $15^{\circ}$ , as recited in claim 29; the inclination angle lies in a range from about  $4^{\circ}$  to  $8^{\circ}$ , as recited in claim 30; an action plane of the at least one second support element of the counter roll coinciding, at least essentially, with a second action plane of the at least one first support element of the shoe press unit, as recited in claim 31; comprising pressure-active surfaces of the at least one second support element being not equal to second pressure-active surfaces of the at least one first support element of the shoe press unit, as recited in claim 32; and a control device coupled to the adjustment device, wherein the control device is adapted to adjust the adjustment device, as recited in claim 34.

Accordingly, Applicants request that the Examiner reconsider and withdraw the rejection of claims 1 - 24 and 25 - 34 under 35 U.S.C. § 103(a) and indicate that these claims are allowable.

2. Over Bentele (or DE '443) in view of Smook

Applicants traverse the rejection of claim 25 under 35 U.S.C. § 103(a) as being unpatentable over BENTELE (or DE '443) in view of SMOOK.

Applicants note that SMOOK fails to disclose or suggest the subject matter noted above as deficient in BENTELE (or DE' 443), and fails to disclose or suggest the necessary motivation or rationale for modifying BENTELE (or DE '443) in the manner asserted by the Examiner. In particular, SMOOK fails to disclose or suggest, *inter alia*, an adjustment device arranged to change a pressure differential between the internal pressures generated by the at least one first support element acting on the flexible press belt of the shoe press unit, and the at least one second support element acting on the roll jacket of the counter roll, as recited in at least independent claim 1, as now amended.

Moreover, SMOOK fails to disclose or suggest any subject matter which would provide the requisite motivation or rationale to modify BENTELE (or DE '443) in the manner asserted by the Examiner. That is, because SMOOK fails to disclose or suggest at least the above-noted subject matter, Applicants submit that it would not have been obvious to modify BENTELE (or DE '443) to include an adjustment device, as recited in at least independent claim 1, as now amended.

Further, Applicants submit that claim 25 is allowable at least for the reason that it depends from allowable base claims and because recites additional features that further define the present invention. In particular, Applicants submit that no proper combination of BENTELE (or DE '443) and SMOOK discloses or suggests, in combination, the third roll, the fourth roll, and the counter roll being cambered, as recited in claim 25.

Accordingly, Applicants request that the Examiner reconsider and withdraw the rejection of claim 25 and indicate that this claim is allowable.

***Authorization to Charge Deposit Account***

Should an Extension of Time be necessary to maintain the pendency of this application, including any extensions of time required to place the application in condition for allowance by Examiner's Amendment, the Commissioner is hereby authorized to charge any additional fees to Deposit Account No. 19-0089.

Thus, Applicants respectfully submit that each and every pending claim of the present invention meets the requirements for patentability under 35 U.S.C. §§ 102 and 103, and respectfully request the Examiner to indicate allowance of each and every pending claim of the present invention.

**CONCLUSION**

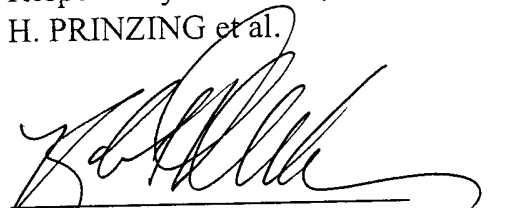
In view of the foregoing, it is submitted that none of the references of record, either taken alone or in any proper combination thereof, anticipate or render obvious the Applicants' invention, as recited in each of claims 1 - 34. The applied references of record have been

discussed and distinguished, while significant claimed features of the present invention have been pointed out.

Further, any amendments to the claims which have been made in this response and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Accordingly, reconsideration of the outstanding Office Action and allowance of the present application and all the claims therein are respectfully requested and now believed to be appropriate.

Respectfully submitted,  
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**APPENDIX**

***Marked-Up Copy of Claim***

13. (Amended) The press device according to claim 1, wherein the pressure fluid line is a common pressure fluid line, and the at least one first support element and the at least one second support element being connected to the common pressure fluid line, the adjustment device comprising an adjustable pressure reduction device provided in at least one of the pressure fluid connection between the common pressure fluid line and the at least one first support element, and the pressure fluid connection between the common pressure fluid line and the at least one second support element, the pressure differential being changeable by the adjustable pressure reduction device.